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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/810,641	03/16/2001	Gwo Shin Swei	D-4062	7390

7590

02/24/2004

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EXAMINER
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ROSE, ROBERT A

ART UNIT	PAPER NUMBER
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3723

DATE MAILED: 02/24/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
**09/810,641**

Applicant(s)  
**Swei**

Examiner  
**Robert Rose**

Art Unit  
**3723**



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Nov 28, 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

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### DETAILED ACTION

1. Claims 1-8 are presented for examination.
2. Claim 5 is objected to because of the following informalities: It appears that the word “reverse” in the second occurrence of line 2 is mis-spelled as “reserve”. Appropriate correction is required.
3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5, and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jost in view of Marton(US 4184291). Jost discloses an abrasive disk for use with a suction-type apertured backup pad comprising a plurality of uniformly spaced perforations, at least some of which overlie the apertures in the backup pad to allow the pad to be placed randomly on the backup pad while still allowing suction passageways to remain open to draw dust through the pad. The distribution of the perforations across the disk does not appear to be critical. Only perforations which lie within the annular region bounded by the pad apertures would be capable of delivering dust through the apertures, as in applicant’s disk, thus any holes located outside of this annular region are non-functional with respect to suction capability, and thus the particular range of holes would have been an obvious matter of design choice to those of ordinary skill in the art. Marton(‘291) discloses an abrasive disk for use with a sanding device comprising an

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array of apertures formed by screen or grid(60), which is intended to underlie the exhaust ports(24) in sanding pad(12) to allow the suction to draw dust and debris from the surface being sanded. It is clear from the drawings, notably figures 1 and 5, that the apertures(60) are considerably smaller in size than the exhaust ports to the extent that at least two apertures in the screen would be in register with each exhaust port(24), thus ensuring that adequate suction can be maintained(see also column 4, lines 47-55). To provide a hole spacing in the tool of Jost such that at least two apertures are in register with each respective exhaust port, to ensure adequate suction would have been obvious in view of Marton('291).

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jost in view of Gutknecht et al and further in view of Marton('291). Gutknecht et al discloses the alternative use of hook-and-loop or adhesive fastening of an abrasive disk to a backup pad. To use a conventional hook-and-loop type or adhesive fastening means for temporary removal or repositioning of the disk on the backup pad would have been obvious in view of Gutknecht et al. Marton('291) discloses an abrasive disk for use with a sanding device comprising an array of apertures formed by screen or grid(60), which is intended to underlie the exhaust ports(24) in sanding pad(12). The apertures(60) are considerably smaller in size than the exhaust ports to the extent that at least two apertures in the screen would be in register with each exhaust port(24). To provide a hole spacing in the tool of Jost such that at least two apertures are in register with each respective exhaust port, to ensure adequate suction would have been obvious in view of Marton('291).

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6. Applicant's arguments filed November 28, 2003 have been fully considered but they are not persuasive. At least some of the perforations in the abrasive disk of Jost overlies the apertures in the backup pad to allow the disk to be placed randomly on the backup pad while still allowing suction passageways to remain open to draw dust through the pad. With regard to the first three characteristics listed by Applicant in his rebuttal, the distribution of the perforations across the disk does not appear to be critical. Only perforations which lie within the annular region bounded by the pad apertures would be capable of delivering dust through the apertures, as in applicant's disk, thus any holes located outside of this annular region are non-functional with respect to suction capability. There appears to be no criticality to the pattern of apertures, and no new or unexpected result achieved by limiting the disk apertures to an annular band, thus such pattern of distribution is considered an obvious matter of design choice. It is well documented in case law that the removal of structure with a consequent loss of its function is considered an obvious matter of design choice. In re Nelson, 40 CCPA 708, 198 F.2d 837, 95USPQ 82. In this instance, the removal of non-functional suction apertures lying outside of an area encompassed by the suction passageways would have been no more than an obvious matter of design choice. Such modification, while perhaps decreasing the versatility of the disk for mounting to some backup pads, would not destroy the utility of the device. Moreover, the elimination of some apertures would require less effort in the manufacture of the disk. Gutknecht et al was cited against claim 6 to teach the expediency of using a conventional hook-and-loop fastening means for removably securing the disk to the backup pad, allowing the disk to be reused or repositioned

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without the need for adhesive. Marton('291) was applied to address the new limitation "wherein at least two apertures are in register with each exhaust port". To provide a hole spacing in the tool of Jost such that at least two apertures are in register with each respective exhaust port, to ensure adequate suction would have been obvious in view of Marton('291). With regard to additional characteristics 4,5,6 listed in applicant's rebuttal, these characteristics are at least suggested by the apertured sanding disk of Marton('291).

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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8. Any inquiry concerning this communication should be directed to Robert Rose at telephone number (703) 308-1360.

IT

February 20, 2004.

A handwritten signature in black ink, appearing to read "Robert A. Rose", is written over the typed name.

**ROBERT A. ROSE**  
**PRIMARY EXAMINER**  
**ART UNIT 323**